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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/589,712

08/17/2006

J. Michael Lucas

06005/41111

8803

45372

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01/21/2011

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EXAMINER

NGUYEN, PHILLIP H

ART UNIT

PAPER NUMBER

2191

NOTIFICATION DATE

DELIVERY MODE

01/21/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/589,712

Applicant(s)

LUCAS ET AL.

Examiner

PHILLIP H. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 3-26 is/are allowed.
- 6) ☒ Claim(s) 27-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20101102, 20101203</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the amendment filed 11/02/2010.
2. Claims 1, 3-43 remain pending in this application.
3. Claims 1, 16-27, and 36 have been amended.
4. Claim 2 has been cancelled.

Response to Amendment

5. The objection to the Abstract in the previous Office Action is hereby withdrawn in view of applicant's amendment.
6. The rejection under 35 U.S.C. 101 to claims 1-26 is hereby withdrawn in view applicant's amendment.
7. The rejections under 35 U.S.C. 102(b) to claims 1-3, 5, 6, 11, 12, 14-17, 19,20, 24, and 25 are hereby withdrawn in view of applicant's amendment.
8. The rejections under 35 U.S.C. 103(a) to claims 4, 7-19, 13, 18, 21-23, and 26 are hereby withdrawn in view of applicant's amendment.

Allowable Subject Matter

9. Claims 1, 3-26 are allowed.

Information Disclosure Statement

10. The information disclosure statements (IDS) submitted on 11/02/2010 and 12/09/2010 have been considered by the examiner. The cited documents identified as "Examination Report for Application No. GB0620325.1 and GB1006123.2" are considered by the examiner. However, these cited documents are official documents that were sent to the applicant in response to the examination process of patent applications and cannot be listed in a printed patent publication. An initial of the examiner will cause these cited documents to be listed in the printed publication and therefore a strikethrough of these cited documents is applied.

Claim Objections

11. Claims 3, 5, 6, 8, 27 are objected to because of the following informalities:
- a. Claims 3, 5, 6, and 8 should depend on independent claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claim 1 recites the limitations "the operation" and "the process plant in the preamble of the claim. There are insufficient antecedent basis for these limitations in

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the claim. For examining purposes, the examiner interprets these limitations to read as "operation" and "process plant".

14. Claim 16 recites the limitation "the operation" in the preamble of the claim. There is insufficient antecedent basis for this limitation in the claim. For examining purposes, the examiner interprets this limitation to read as "operation".

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16. Claims 27-35 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,631,825 to Van Weele et al. ("Van Weele").

As per claim 27

van Weele teaches a process control and configuration system for use in a process plant, comprising:

a plurality of physical and logic process entities which operate together to perform a process (see at least **FIG. 5 "SEQUENCES/SECTIONS"**);

a process controller communicatively connected to the plurality of physical and logical process entities (see at least **FIG. 2**; see also col. 18:49-54 "**the operator station 20 of the present invention is typically utilized in a manufacturing process**

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control system 60 including one or more dedicated process control computers (PCCs) 62-70 each of which PCCs 62-70 controls one or more SEQUENCES in a manufacturing process");

one or more control routines implemented on the process controller to control the operation of the plurality of physical and logic process entities (see at least col. 17:63-65 **"one or more process control computers monitored and controlled through the operator station 20 interface"**);

a display device including a processor and a display screen (see at least **FIG. 2**; see also col. 17:63 **"operator station"**); and

a set of interrelated graphic displays (see at least **FIG. 5 "SEQUENCES"** and **"SECTIONS"**), the graphic displays independently executable on the display device to visually represent the operation of one or more of the process entities within the process plant on the display screen (see at least FIG. 3; see also col. 20:45-54 **"...provide the operator with an overview of the manufacturing process, Plant Overview Windows include a SECTIONS Overview Window 36, a SEQUENCES Overview Window 38..."**), wherein one of the set of interrelated graphic displays may be sequentially accessed from another one of the set of graphic displays (see at least col. 13:18-20 **"Clicking on the Flowsheet Button of a SEQUENCE Indicator causes the Master Flowsheet for that SEQUENCE to be displayed within the plant Overview Flowsheet Window"**).

As per claim 28

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a graphic display editor adapted to create each of the set of interrelated graphic displays (see at least col. 22:30-32 "**Flowsheet provides the ability to create additional flowsheet window 52 on the secondary display 28...**").

As per claim 29

van Weele teaches

wherein one of the set of interrelated graphic displays includes a display area (see at least **FIG. 3**), one or more visually interconnected graphic objects (see at least **FIG. 5**), each of the graphic objects including a visual representation of a physical or a logical entity within the process plant (see at least **FIG. 5**), a property definition defining a property associated with at least one of the plurality of graphic objects (see at least col. 2:36-40 "**It should be noted that certain elements such as, for example, variables, may be associated with more than one SEQUENCE. That is an attribute of a SEQUENCE is not necessarily uniquely associated with that SEQUENCE, but may also be an attribute of a different SEQUENCE**") and a binding definition specifying a binding between the property and a runtime environment within the process plant (see at least FIG. 5 - Note: The variables are bound to a runtime environment with the process plant in order to provide status, color, shade, etc., of the sequence).

As per claim 30

van Weele teaches

wherein the one of the set of interrelated graphic displays includes a visual link within the display area that enables a user to interact with the one of the set of interrelated graphic displays to link to the another one of the set of interrelated graphic displays (see at least col. 13:18-20 **“Clicking on the Flowsheet Button (i.e. visual link) of a SEQUENCE Indicator causes the Master Flowsheet for that SEQUENCE to be displayed within the plant Overview Flowsheet Window”**).

As per claim 31

van Weele teaches

wherein the another one of the set of interrelated graphic displays provides information about an entity within the one of the set of interrelated graphic displays (see at least col. 13:18-20 **“Clicking on the Flowsheet Button (i.e. visual link) of a SEQUENCE Indicator causes the Master Flowsheet for that SEQUENCE to be displayed within the plant Overview Flowsheet Window”**).

As per claim 32

van Weele teaches

wherein the one of the set of interrelated graphic displays illustrates a first section of the process plant and the another one of the set of interrelated graphic displays illustrates a second and different section of the process plant (see at least FIG. 3; see also col. 20:45-54 **“...a SECTIONS Overview window 36, a SEQUENCES Overview window 38”** – Note: a SEQUENCES overview window is considered another

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one of the set of interrelated graphic displays).

As per claim 33

van Weele teaches

wherein the one of the set of interrelated graphic displays illustrates a first section of the process plant and the another one of the set of interrelated graphic displays illustrates a sub-section of the first section of the process plant (see at least (see at least col. 7:42 “**A SECTION is a logical collection of SEQUENCES**” – Note: A SEQUENCE is a subsection of a SECTION)).

As per claim 34

van Weele teaches

wherein the one of the set of interrelated graphic displays illustrates a first functional view of a section of the process plant and the another one of the set of interrelated graphic displays illustrates a second function view of the section of the process plant (see at least **FIGS. 5-6** – Note: SECTION illustrates a first functional view and SEQUENCE illustrate a second functional view).

As per claim 35

van Weele teaches

wherein the first functional view is a control operator view (see at least FIG. 3; see also col. 20:45-54 “...**Plant Overview Windows, provide the operator with an overview**

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of the manufacturing process...") and the second functional view is one of a maintenance view or a business view or a simulation view or an engineering view (see at least col. 20:33-38 **"The operator station 20 of the present invention must, therefore, provide an operator with quick access to information relating to the status of the one or more SECTIONS and SEQUENCES of the process being monitored by that operator"** - Note: Since the operator is provided with information related to status of SECTIONS and SEQUENCES, a maintenance view is also provided to the operator).

Claim Rejections - 35 USC § 102

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

17. Claims 36-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Pub. No. US 2004/0075689 to Schleiss et al. ("Schleiss").

As per claim 36

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Schleiss teaches a process control and configuration system for use in a process plant, comprising:

a plurality of physical and logic process entities which operate together to perform a process (see at least **FIG. 4**);

a process controller communicatively connected to the plurality of physical and logical process entities (see at least **FIG. 1 - controller 12**);

one or more control routines implemented on the process controller to control the operation of the plurality of physical and logic process entities (see at least par. [0016]

“As is known, each of the controller 12, which may be by way of example, the DeltaV controller sold by Fisher-Rosemount system, inc., stores and executes a controller application that implements a control strategy using a number of different, independently executed, control modules or blocks...to implement process control loops within the process plant 10”);

a display device including a processor and a display screen (see at least **FIG. 1 – operator workstations 20 and 22**); and

a graphic display editor that enables a user to design a set of interrelated graphic displays, wherein each of the set of interrelated graphic displays is executable on the display device to visually represent the operation of one or more of the process entities within the process plant on the display screen (see at least **FIG. 4**).

As per claim 37

Schleiss teaches

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wherein the graphical display editor is adapted to interrelate the graphic displays by allowing a user to specify a manner in which one of the graphic display is related to another one of the graphic displays (see at least par. [0035] “... **process flow modules may be communicatively connected to one other to operate in conjunction with each other, either on the same or on different computers**”).

As per claim 38

Schleiss teaches

wherein the another one of the graphic displays provides information about an entity within another one of the graphic displays (see at least par. [0035] “**each smart object within the process flow modules may support or be used in different process flow modules and in different views or displays for those process flow modules**”).

As per claim 39

Schleiss teaches

wherein the one of the graphic displays illustrates a first section of the process plant and the another one of the graphic displays illustrates a second and different section of the process plant adjacent to the first section of the process plant (see at least par. [0035] “... **process flow modules may be communicatively connected to one other to operate in conjunction with each other, either on the same or on different computers**” – Note: Each flow module is considered as a section of the

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process plant).

As per claim 40

Schleiss teaches

wherein the one of the graphic displays illustrates a first section of the process plant and the another one of the graphic displays illustrates a sub-section of the first section of the process plant (see at least par. [0035] “... **process flow modules may be communicatively connected to one other to operate in conjunction with each other, either on the same or on different computers**” – Note: Each flow module is considered as a subsection of the process plant (i.e. a combination of all flow modules))

As per claim 41

Schleiss teaches

wherein the graphic display editor is adapted to interrelate the graphic displays by allowing a user to create a first one of the graphic displays as a first functional display and to create a second one of the graphic displays as a second functional display (see at least **FIG. 3 – View 1, View 2, and View 3**).

As per claim 42

Schleiss teaches

wherein the first functional display is a control operator display and the second functional display is one of a maintenance display or a business display or a simulation

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display or an engineering display (see at least par. [0004] “...**an operator’s view, an engineer’s view...**”).

As per claim 43

Schleiss teaches

wherein the first functional display is a maintenance display and the second functional display is one of a control display or a business display or a simulation display or an engineering display (see at least par. [0004-0005] “...**an engineer’s view, a technician’s view... maintenance displays...**”).

Response to Arguments

18. Applicant's arguments filed 11/02/2010 have been fully considered but they are not deemed persuasive.

19. Applicant argues

- a. Van Weele fails to teach "wherein **one of** the set of interrelated graphic display **may be** sequentially accessed **from another one of** the set of graphic displays" in regarding to claim 27.
- b. Van Weele fails to teach “the graphic displays independently executable...” in regarding claim 27.

20. Examiner’s response

- a. Van Weele teaches **"Referring to FIGS. 5 and 10, in a best contemplated mode the SECTION overview Graphic Sheet 108 may also include one or more navigation markers 112 which, by positioning the cursor over the marker and clicking, allow the operator to navigate to a SECTION in the process he is allowed to access for information..."** (see at least col. 25:28-35). Thus, operators are allowed to go from one SECTION to another for accessing information. Furthermore, the applicant is respectfully suggested to amend the claim to clearly recite that one of the graphic display of the set of interrelated graphic display is sequentially accessed from another one of the graphic display of the set of the graphic displays.
- b. Van Weele teaches **"A SECTION is a logical collection of SEQUENCES. Unlike SEQUENCES, a SECTION is not necessarily associated with a single PCC. A SECTION is likewise not necessarily associated with a single manufacturing process. A SECTION might include a set of SEQUENCES, each under the supervision of different process control computers (and each possibly relating to different manufacturing processes, but which have similar operation characteristics...Thus, identification of a SECTION of SEQUENCES allows for a logical grouping which can efficiently be monitored and controlled by a single operator at the operation station regardless of the physical location, or the physical interrelationship, of the SEQUENCES"** (see at least col. 7:41-57). Thus, each

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SECTION or a group of SECTION is controlled and monitor independently by operators.

Conclusion

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

22. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHILLIP H. NGUYEN whose telephone number is (571) 270-1070. The examiner can normally be reached on Monday - Thursday 10:00 AM - 3:00 PM EST.

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24. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

25. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PN

/Wei Y Zhen/
Supervisory Patent Examiner, Art Unit 2191